



Atty. Dkt. No. 038941-0104

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Robert W. KILLICK et al.

Title: ADJUVANT COMPOSITION FOR  
CHEMICALS USED IN  
AGRICULTURE

Appl. No.: 09/831,301

Filing Date: 05/08/2001

Examiner: Alton Nathaniel Pryor

Art Unit: 1616

**AMENDMENT TRANSMITTAL**

Commissioner for Patents  
Box NON-FEE AMENDMENT  
Washington, D.C. 20231

Sir:

Transmitted herewith is an amendment in the above-identified application.

[ ☒ ] Small Entity status under 37 C.F.R. § 1.9 and § 1.27 has been established by a Small Entity statement previously submitted.

[ ☐ ] Small Entity statement is enclosed.

[ ☒ ] The fee required for additional claims is calculated below:

	Claims as Amended	Previously Paid For	Extra Claims Present	Rate	Additional Claims Fee
Total Claims:	44	45	0	\$18.00	\$0.00
Independents:	16	17	0	\$84.00	\$0.00
First presentation of any Multiple Dependent Claims:			+	\$280.00	\$0.00
CLAIMS FEE TOTAL:					\$0.00

[ ☐ ] Applicant hereby petitions for an extension of time under 37 C.F.R. § 1.136(a) for the total number of months checked below:

<input type="checkbox"/>	Extension for response filed within the first month:	\$110.00	\$0.00
<input type="checkbox"/>	Extension for response filed within the second month:	\$400.00	\$0.00
<input type="checkbox"/>	Extension for response filed within the third month:	\$920.00	\$0.00
<input type="checkbox"/>	Extension for response filed within the fourth month:	\$1,440.00	\$0.00
<input type="checkbox"/>	Extension for response filed within the fifth month:	\$1,960.00	\$0.00
EXTENSION FEE TOTAL:			\$0.00
CLAIMS AND EXTENSION FEE TOTAL:			\$0.00
<input checked="" type="checkbox"/>	Small Entity Fees Apply (subtract ½ of above):		\$0.00
TOTAL FEE:			\$0.00

- ☐ Please charge Deposit Account No. 19-0741 in the amount of \$0.00. A duplicate copy of this transmittal is enclosed.
- ☐ A check in the amount of \$0.00 is enclosed.
- ☒ The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

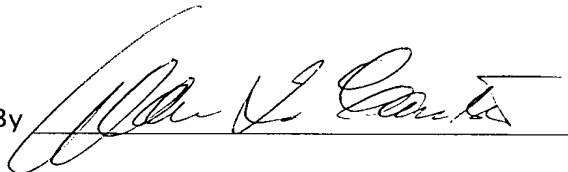
Please direct all correspondence to the undersigned attorney or agent at the address indicated below.

Respectfully submitted,

Date

Sept. 18, 2002

By



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Atty. Dkt. No. 038446-0104

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#9  
HKO  
9-27-02

**REPLY UNDER 37 C.F.R. § 1.116**

Commissioner for Patents  
Box AF  
Washington, D.C. 20231

Sir:

This communication is responsive to the Office Action dated June 18, 2002, concerning the captioned patent application.

**REMARKS**

**I. Introduction**

Applicants thank the Examiner for the informative telephonic interview ("interview") on August 13, 2002, the content of which is incorporated into the following comments. Applicants acknowledge that this reply is submitted after the issuance of a final Office Action and therefore thank the Examiner for agreeing during the interview to consider such comments as they place this application in condition for allowance or at least in better condition for consideration on appeal.

**II. Status of the Claims**

Claims 1 – 30 and 32 – 45 are pending. Applicants gratefully acknowledge the Examiner's indication that claim 33 is allowed. The Examiner stated previously (Office Action dated July 30, 2001), and has since maintained, that at least claims 34 – 38

Action dated July 30, 2001), and has since maintained, that at least claims 34 – 38 and 41 – 45 were allowable but for their dependencies upon rejected base claims. During the interview, Applicants' representatives pointed out, and the Examiner agreed, that claims 34 – 38 and 41 – 45 are allowable independent claims.

**III. Rejection of Claims Under 35 U.S.C. § 103(a)**

Claims 1 – 4, 11, 15, 16, 18 – 20, 22, 24, 27 – 30, 32, 39, and 40 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Pat. No. 4,964,874 to Saphakkul ("Saphakkul") and the abstract for JP 58023898A ("JP '898"). Office Action at page 2.

**A. The Examiner's Ground for Rejection**

The Examiner maintains the present rejection despite Applicants' previous arguments pointing out (a) that there is no motivation to combine the references, as they are directed to different types of compositions, which references (b) do not teach homogeneous compositions comprising lipophilic and lipophobic substances. Specifically, the Examiner considers that both references purportedly disclose aqueous solutions "to solve solubility problems associated with lipophilic solvents." Thus, the Examiner continues, ample motivation to combine the references is predicated on the basis that both references "individually teach aqueous solutions." The Examiner concludes that additional motivation to combine exists because each reference teaches a composition that functions as a conditioner. Applicants courteously traverse this rejection.

**B. Saphakkul Does Not Teach or Suggest Each and Every Claimed Limitation**

Saphakkul, alone or in combination with JP '898, does not teach or even suggest to the skilled artisan that the disclosed fatty alcohol is a lipophilic solvent. One of the basic requirements for establishing a *prima facie* case of obviousness is that all of the claim limitations must be taught or suggested by the prior art. See MPEP § 2143.

1. *Saphakkul Teaches Water as the Solvent*

Saphakkul discloses a hair dye composition comprising (a) up to 5% of a cationic surfactant; (b) up to 5% by weight of a fatty alcohol; (c) up to 5% of a basic dye; and (d) up to 5% of a neutral dye. *See, e.g.*, Saphakkul at col. 2, lines 8 – 19. Assuming, *arguendo*, that the maximum amount of each component is utilized in the hair dye composition of Saphakkul, then fully 80% (by weight) of the composition comprises a medium. Indeed, the reference teaches that the four components are present “in an aqueous medium . . .” *see* Saphakkul at col. 2, line 25, in which the water comprises up to 99% of the composition by weight. *Id.* at col. 4, lines 12 – 13. *See also* Saphakkul at Example 1 (water is 90.77% by weight) and Example 2 (water is 95.75% by weight). Additionally, Saphakkul is replete with references to pH adjustment, *see, e.g.*, Saphakkul at col. 4, lines 31 – 58, which is applicable to only aqueous compositions. Thus, the person of ordinary skill in the art, armed with the plain teaching of Saphakkul, would conclude that water, and no other component, is the solvent in the disclosed hair dye composition.

2. *The Claimed Adjuvant Comprises a Lipophilic Solvent*

The present invention is a homogeneous adjuvant comprising four elements: (a) a lipophilic solvent; (b) at least one lipophobic plant nutrient; and (c) at least one cationic emulsifier that (d) acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient. It is evident from the prosecution history and the interview that the Examiner chiefly maintains that Saphakkul is applicable because the “fatty alcohol” of Saphakkul purportedly falls within the scope of the claimed lipophilic solvent. “All words in a claim must be considered in judging the patentability of that claim against the prior art. If no reasonably definite meaning can be ascribed to certain terms in the claim, the subject matter does not become obvious . . .” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). There is evidently no disagreement here over the meaning of the term “solvent.” Thus, it appears that the Examiner accords little, if any, significance to the fact that the claimed lipophilic solvent *is* a solvent, whereas the fatty alcohol of Saphakkul is anything but a solvent. In fact, the fatty alcohol of Saphakkul forms a disperse lamellar liquid crystal phase with the cationic surfactant. *See* Saphakkul at col. 2, lines 25 – 27, 46 – 50, and 58

– 61. The inventive adjuvant provides a distinct advantage over prior art agrochemical compositions *because* lipophilic solvents can be used with otherwise *insoluble* lipophobic plant nutrients to provide homogeneous compositions. *See, e.g.*, specification at page 2, lines 23 – 27. It is clear from the preceding discussion that Saphakkul teaches a composition in which water is the solvent, whereas the claimed adjuvant comprises a lipophobic substance as the solvent. Because water is not a lipophobic substance, and because JP '898, as with Saphakkul, is limited to aqueous compositions, Saphakkul, alone or in combination with JP '898, does not teach or suggest the recited lipophobic solvent. Therefore, the references do not teach or suggest all of the claim limitations. For at least this reason, the rejection should be withdrawn.

**C. The Rejection is Improper Because the Cited References Are Non-analogous Art**

The person of ordinary skill in art would not be motivated to combine the references to arrive at the claimed agrochemical adjuvant. A second requirement in establishing a *prima facie* case of obviousness is to point out a suggestion or motivation to combine the references. *See* MPEP 2143.

Applicants kindly draw the Examiner's attention to the mandate that "the examiner *must* determine what is 'analogous prior art' for the purpose of analyzing the obviousness of the subject matter at issue." *See* MPEP § 2141.01(a) (emphasis supplied). The present rejection is improper because the Examiner selected without apparent reason two references in the hair products art that allegedly obviate claims to an agrochemical composition. It is well settled law that "[i]n order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). *See also In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986); *In re Clay*, 966 F.2d 656, 23 USPQ2d 1058 (Fed. Cir. 1992).

1. *Saphakkul and JP '898 Are Not Pertinent to the Agrochemical Art*

JP '898 is directed to a shampoo composition and Saphakkul is directed to a hair dye composition. *Supra*. Neither reference is remotely related to the field of agrochemical adjuvants, and specifically those comprising plant nutrients. It stands to reason that a person of ordinary skill in the art who is seeking a solution to a problem in the agrochemical art would hardly turn to references directed to hair care products. As discussed above, the examiner must consider *all* words in a claim in judging the patentability of that claim against the prior art. *See In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). Here, claim 1 does not merely recite a composition, but rather recites a composition that comprises a lipophilic *plant nutrient*. Applicants submit, as they have previously, that the Examiner's understanding of ammonium chloride, recited in JP '898, being a plant nutrient is informed not by either JP '898 or Saphakkul, but by Applicants' disclosure. As such, this understanding constitutes impermissible hindsight reasoning, which vitiates the Examiner's alleged *prima facie* case of obviousness. *See In re McLaughlin*, 443 F.2d 1392, 1395, 170 USPQ 209, 212 (CCPA 1971) ("[a]ny judgment on obviousness is in a sense necessarily a reconstruction based on hindsight reasoning, but so long as it takes into account only knowledge which was within the level of ordinary skill in the art at the time the claimed invention was made and does not include knowledge gleaned only from applicant's disclosure, such a reconstruction is proper.")

2. *Saphakkul and JP '898 Are Not Pertinent to the Problem that Applicants Endeavored to Solve*

Saphakkul and JP '898 disclose aqueous compositions directed to hair dye and shampoo compositions, respectively. Either reference, or a combination of the two, would not solve the problem of providing a stable homogeneous blend comprising a lipophilic solvent and lipophobic plant nutrient. Because lipophobic plant nutrients are not soluble in lipophilic solvents, achieving such a blend is problematic. *See* specification at page 2, line 29 to page 3, line 2. However, the use of lipophilic solvents is desirable because water-based agrochemical compositions are ineffective if they dry on plant leaves. *See id.* at page 2, line 8 – 12. The present invention resolves these "competing" objectives in the inventive adjuvant. A person of ordinary skill in the art would hardly be motivated to combine two references that each disclose

*aqueous* hair care compositions in order to solve a problem in the preparation and delivery of a stable *oil-based* composition of a plant nutrient.

The Examiner posits that Saphakkul and JP '898 "individually teach aqueous solutions to solve solubility problems associated with lipophilic solvents." On this basis, the Examiner reasons that "ample motivation is available for combining the prior art compositions." Office Action at page 2. Applicants cannot agree with the Examiner's analysis of the references for two reasons. First, nowhere in either reference is any suggestion that the disclosed compositions are formulated to solve solubility problems, much less those associated with the use of lipophilic solvents. JP '898 is simply silent with regard to any problem it purportedly solves. The hair dye compositions of Saphakkul are carefully formulated in order to avoid the staining of a user's hands. See Saphakkul at col. 1, line 61 – cols. 2, line 2. Second, as discussed above, the references plainly teach the use of water as a solvent. Thus, in contrast to the Examiner's assertion, a person of ordinary skill in the art would not look to JP '898 and Saphakkul for ways to solve solubility problems relating to the use of lipophilic solvents.

### 3. *Kerkhoven is Inapposite*

Applicants kindly point out that the Examiner's continued reliance upon the rule enunciated in *In re Kerkhoven*, 626 F.2d 846, 205 USPQ 1069 (C.C.P.A. 1980) in sustaining the present rejection is unfounded. In the Examiner's opinion, it would have been obvious to combine JP '898 and Saphakkul "since both references individually teach compositions functioning as conditioners." Office Action at page 2. In *Kerkhoven*, the Court of Customs and Patent Appeals affirmed the examiner's rejection of claims to processes of producing particulate detergents under 35 U.S.C. § 103(a) as being unpatentable over a number of combinations of references disclosing processes of making other detergent compositions. See 626 F.2d at 849. As the present Examiner correctly noted, the *Kerkhoven* court reasoned that "[i]t is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition which is to be used for the very same purpose." *In re Kerkhoven*, 626 F.2d 846, 850 (citing *In re Susi* 440 F.2d 442,445, 169 USPQ 423, 426 (C.C.P.A. 1971) and *In re Crockett*, 279 F.2d



274, 276, 126 USPQ 186, 188 (C.C.P.A. 1960)). Conspicuously absent from the Examiner's analysis in this and in previous Office Actions is any justification for combining primary and secondary references, both in the hair products art, in support of an obviousness rejection of claims in the agrochemical art. Thus, the facts here are distinguished from those before the *Kerkhoven* court, which certainly held nothing about the combination of references in an arbitrarily chosen art to support an obviousness rejection of claims to subject matter in a wholly different art. Consequently, the proposition stated in *Kerkhoven* is simply unavailable to the Examiner in maintaining the present rejection.

For at least the reasons stated above, Applicants submit that the present rejection is rendered moot. Accordingly, Applicants courteously request the Examiner to withdraw this rejection.

**VI. Conclusion**

Having demonstrated ample reason why the Examiner should not maintain the sole rejection, Applicants believe that the present application is now in condition for allowance. Accordingly, Applicants kindly request favorable reconsideration of the application. The Examiner is invited to contact the undersigned by telephone if he feels that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

Date

Sept. 18, 2002

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